

ABSTRACT OF THE DISCLOSURE

The LSI design and development in manufacture is actualized by algorithm design, architecture design, actual hardware and software design, and verification.

Herein, the architecture design contains a simulation platform structuring process and

5 a bus performance evaluation process, which are interconnected by a feedback loop.

In the algorithm design, sources are described by the general purpose high-level language such as the C language and C++ language. In the simulation platform

structuring process, the sources are subjected to isolation of the hardware and software, while an evaluation function is created to count bus traffic of the bus interconnecting

10 between the hardware and software. Every time data is written to a pre-defined

variable loaded onto the bus, the evaluation function is performed to modify the sources. Then, evaluation is performed on the performance of the bus, so that the bus

traffic for its processing rate is to be finally produced. That is, the result of the bus performance evaluation process is fed back to the simulation platform structuring

15 process such that isolation of the hardware and software is optimized in response to the bus traffic for the processing rate of the bus. This brings exclusion of feedback loops derived from the cooperative verification after the actual coding, so it is possible to considerably reduce overall turnaround time of design.